VOLUME XXX

INDEX OF PAPERS BY AUTHORS

Author	*Title*	*Page*
ALONSO, J.	Groups of Square-Free Order, An Algorithm	632
ANGELL, I. O.	A Table of Totally Real Cubic Fields	184
ANSHEL, MICHAEL	Decision Problems for *HNN* Groups and Vector Addition Systems	154
BANIUK, L.	See: BARRUCAND, PIERRE, WILLIAMS, H. C. & BANIUK, L.	312
BARROW, DAVID L.	Existence of Gauss Interpolation Formulas for the One-Dimensional Heat Equation	24
BARRUCAND, PIERRE, WILLIAMS, H. C. & BANIUK, L.	A Computational Technique for Determining the Class Number of a Pure Cubic Field	312
BEARD, JACOB T. B., JR. & WEST, KAREN I.	Factorization Tables for Trinomials Over GF(q)	179
BEST, MICHAEL J. & RITTER, KLAUS	A Class of Accelerated Conjugate Direction Methods for Linearly Constrained Minimization Problems	478
BLAIR, J. J.	Higher Order Approximations to the Boundary Conditions for the Finite Element Method	250
BLAIR, J. M., EDWARDS, C. A. & JOHNSON, J. H.	Rational Chebyshev Approximations for the Inverse of the Error Function	827
BLASS, JOSEF	A Note on Diophantine Equation $Y^2 + k = X^5$	638
BOGGS, PAUL T.	The Convergence of the Ben-Israel Iteration for Nonlinear Least Squares Problems	512
BOGGS, PAUL T. & DENNIS, J. E., JR.	A Stability Analysis for Perturbed Nonlinear Iterative Methods	199
de BOOR, CARL	A Bound on the L_∞-Norm of L_2-Approximation by Splines in Terms of a Global Mesh Ratio	765
BOWNDS, JOHN M.	On Solving Weakly Singular Volterra Equations of the First Kind With Galerkin Approximations	747
BROERE, J.	See: WILLIAMS, H. C. & BROERE, J.	887
BRUDNO, SIMCHA	Triples of Sixth Powers with Equal Sums	646
BUELL, DUNCAN A.	Class Groups of Quadratic Fields	610
BUSCHMAN, R. G.	Inequalities for Hypergeometric Functions	303
COHEN, M. E.	Extensions of the Mehler-Weisner and Other Results for the Hermite Function	553
COHN, HARVEY	Dyadotropic Polynomials	854
DANIEL, J. W., GRAGG, W. B., KAUFMAN, L. & STEWART, G. W.	Reorthogonalization and Stable Algorithms for Updating the Gram-Schmidt QR Factorization	772
DENNIS, J. E., JR.	See: BOGGS, PAUL T. & DENNIS, J. E., JR.	199
DUNHAM, CHARLES B.	Rational Approximation with a Vanishing Weight Function and with a Fixed Value at Zero	45
ECKHARDT, ULRICH	A Rational Approximation to Weierstrass' $\wp$-Function	818
EDWARDS, C. A.	See: BLAIR, J. M., EDWARDS, C. A. & JOHNSON, J. H.	827
ELLACOTT, S. & WILLIAMS, JACK	Linear Chebyshev Approximation in the Complex Plane Using Lawson's Algorithm	35
ERDÖS, P.	On Asymptotic Properties of Aliquot Sequences	641
FALK, RICHARD S.	An Analysis of the Finite Element Method Using Lagrange Multipliers for the Stationary Stokes Equations	241
FALK, RICHARD S.	A Finite Element Method for the Stationary Stokes Equations Using Trial Functions Which Do *Not* Have to Satisfy div $v = 0$	698

Author	Title	Page
FETTIS, HENRY E.	Complex Roots of $\sin z = az$, $\cos z = az$, and $\cosh z = az$	541
GIRAULT, V.	Nonelliptic Approximation of a Class of Partial Differential Equations with Neumann Boundary Condition	68
GOLDFARB, DONALD	Factorized Variable Metric Methods for Unconstrained Optimization	796
GOLOMB, SOLOMON W.	Properties of the Sequence $3 \cdot 2^n + 1$	657
GOTTLIEB, DAVID & TURKEL, ELI	Dissipative Two-Four Methods for Time-Dependent Problems	703
GRAGG, W. B.	See: DANIEL, J. W., GRAGG, W. B., KAUFMAN, L. & STEWART, G. W.	772
GUPTA, G. K.	Some New High-Order Multistep Formulae for Solving Stiff Equations	417
HUDSON, RICHARD H.	Generalizations of a Classical Theorem in Number Theory	649
JELTSCH, ROLF	A Necessary Condition for A-Stability of Multistep Multiderivative Methods	739
JOHNSON, J. H.	See: BLAIR, J. M., EDWARDS, C. A. & JOHNSON, J. H.	827
JOHNSON, L. W.	See: SHAW, J. K., JOHNSON, L. W. & RIESS, R. D.	469
JUDD, J. S.	See: WILLIAMS, H. C. & JUDD, J. S.	157
JUDD, J. S.	See: WILLIAMS, H. C. & JUDD, J. S.	867
KADLEC, J.	On the Evaluation of Some Integrals Occurring in Scattering Problems	263
KAUFMAN, L.	See: DANIEL, J. W., GRAGG, W. B., KAUFMAN, L. & STEWART, G. W.	772
LYNESS, JAMES N.	An Error Functional Expansion for N-Dimensional Quadrature with an Integrand Function Singular at a Point	1
McKAY, JOHN	The Largest Degree of Irreducible Characters of the Symmetric Group	624
MIRANKER, W. L. & WAHBA, G.	An Averaging Method for the Stiff Highly Oscillatory Problem	383
MOCK, M. S.	Projection Methods With Different Trial and Test Spaces	400
MONEGATO, GIOVANNI	A Note on Extended Gaussian Quadrature Rules	812
MORÉ, J. J. & TRANGENSTEIN, J. A.	On the Global Convergence of Broyden's Method	523
NAZARETH, LARRY	Generation of Conjugate Directions for Unconstrained Minimization without Derivatives	115
NEWMAN, MORRIS	Asymptotic Formulas Related to Free Products of Cyclic Groups	838
NIEDERREITER, HARALD	On the Distribution of Pseudo-Random Numbers Generated by the Linear Congruential Method. III	571
NIEDERREITER, HARALD & OSGOOD, CHARLES F.	A Uniform Distribution Question Related to Numerical Analysis	366
OKAMOTO, MASASHI	Asymptotic Normality in Monte Carlo Integration	831
OLIGER, JOSEPH	Hybrid Difference Methods for the Initial Boundary-Value Problem for Hyperbolic Equations	724
OSGOOD, CHARLES F.	See: NIEDERREITER, HARALD & OSGOOD, CHARLES F.	366
ROSKUROWSKI, WŁODZIMIERZ & WIDLUND, OLOF	On the Numerical Solution of Helmholtz's Equation by the Capacitance Matrix Method	433
RALL, L. B.	A Quadratically Convergent Iteration Method for Computing Zeros of Operators Satisfying Autonomous Differential Equations	112
REDDIEN, G. W.	Finite-Difference Approximations to Singular Sturm-Liouville Eigenvalue Problems	278
RHEINBOLDT, WERNER C.	On Measures of Ill-Conditioning for Nonlinear Equations	104
RIESS, R. D.	See: SHAW, J. K., JOHNSON, L. W. & RIESS, R. D.	469
RITTER, KLAUS	See: BEST, MICHAEL J. & RITTER, KLAUS	478
ROSENBERGER, GERHARD	The Uniqueness of the Markoff Numbers	361
RUDMAN, RONALD	See: STEINER, RAY & RUDMAN, RONALD	598

Author	Title	Page
SALAMIN, EUGENE	Computation of π Using Arithmetic-Geometric Mean	565
SALZER, HERBERT E.	Converting Interpolation Series into Chebyshev Series by Recurrence Formulas	295
SCHETT, ALOIS	Properties of the Taylor Series Expansion Coefficients of the Jacobian Elliptic Functions	143
SCHOENFELD, LOWELL	Sharper Bounds for the Chebyshev Functions $\theta(x)$ and $\psi(x)$. II	337
SCOTT, RIDGWAY	Optimal L^∞ Estimates for the Finite Element Method on Irregular Meshes	681
SHANKS, DANIEL	Class Groups of the Quadratic Fields Found by F. Diaz y Diaz	173
SHAW, J. K., JOHNSON, L. W. & RIESS, R. D.	Accelerating Convergence of Eigenfunction Expansions	469
SLOAN, IAN H.	Improvement by Iteration for Compact Operator Equations	758
SNIDER, ARTHUR DAVID	Error Analysis for a Stiff System Procedure	216
SNIDER, ARTHUR DAVID	Numerical Applications of Reflection to Partial Differential Equations	220
SPIRA, ROBERT	Zeros of Hurwitz Zeta Functions	863
STEINER, RAY & RUDMAN, RONALD	On an Algorithm of Billevich for Finding Units in Algebraic Number Fields	598
STEPLEMAN, ROBERT S.	Tridiagonal Fourth Order Approximations to General Two-Point Nonlinear Boundary Value Problems with Mixed Boundary Conditions	92
STEWART, G. W.	See: DANIEL, J. W., GRAGG, W. B., KAUFMAN, L. & STEWART, G. W.	772
STREIT, ROLAND F.	The T_{+m} Transformation	505
STROUD, A. H.	Some Fourth Degree Integration Formulas for Simplexes	291
THOMAS, D. H.	Pseudospline Interpolation for Space Curves	58
TRANGENSTEIN, J. A.	See: MORÉ, J. J. & TRANGENSTEIN, J. A.	523
TURKEL, ELI	See: GOTTLIEB, DAVID & TURKEL, ELI	703
WAHBA, G.	See: MIRANKER, W. L. & WAHBA, G.	383
WANG, PAUL S.	Factoring Multivariate Polynomials over Algebraic Number Fields	324
WARD, ROBERT C.	The QR Algorithm and Hyman's Method on Vector Computers	132
WEST, KAREN I.	See: BEARD, JACOB T. B., JR. & WEST, KAREN I.	179
WIDLUND, OLOF	See: PROSKUROWSKI, WŁODZIMIERZ & WIDLUND, OLOF	433
WIEDERHOLT, LAWRENCE F.	Stability of Multistep Methods for Delay Differential Equations	283
WILHELMSEN, DON R.	A Nearest Point Algorithm for Convex Polyhedral Cones and Applications to Positive Linear Approximation	48
WILLETT, MICHAEL	Characteristic m-Sequences	306
WILLIAMS, H. C.	See: BARRUCAND, PIERRE, WILLIAMS, H. C. & BANIUK, L.	312
WILLIAMS, H. C. & BROERE, J.	A Computational Technique for Evaluating $L(1, \chi)$ and the Class Number of a Real Quadratic Field	887
WILLIAMS, H. C. & JUDD, J. S.	Determination of the Primality of N by Using Factors of $N^2 \pm 1$	157
WILLIAMS, H. C. & JUDD, J. S.	Some Algorithms for Prime Testing Using Generalized Lehmer Functions	867
WILLIAMS, JACK	See: ELLACOTT, S. & WILLIAMS, JACK	35
WILLIAMS, KENNETH S.	Explicit Criteria for Quintic Residuacity	847
YANG, C. H.	Maximal Binary Matrices and Sum of Two Squares	148
ZAREMBA, S. K.	On Cartesian Products of Good Lattices	546

SUBJECT CLASSIFICATION SYSTEM FOR INDEX OF REVIEWS

The following subject classification system is used for the yearly index of reviews. Individual reviews in the quarterly issues are assigned index classification numbers in simplified form.

1.00 Biography and Bibliography (History)

2.00 Selected Topics in Numerical Analysis

- 2.05 *Approximation Theory*
  - 2.05.1 *Least Squares, Curve Fitting, Harmonic Analysis*
  - 2.05.2 *Chebyshev (Best) Approximation*
  - 2.05.3 *Interpolation, Extrapolation*
  - 2.05.4 *Inverse Interpolation*
  - 2.05.5 *Rational Approximation*
  - 2.05.6 *Splines*
- 2.10 *Numerical Integration*
  - 2.10.1 *One-Dimensional*
  - 2.10.2 *Multi-Dimensional*
  - 2.10.3 *Monte Carlo*
- 2.15 *Numerical Differentiation*
- 2.20 *Roots of Equations*
- 2.25 *Evaluation of Series*
- 2.30 *Continued Fractions*
- 2.35 *Iteration Methods, Acceleration Techniques*
- 2.40 *Differences, Divided Differences*
- 2.45 *Algorithms, General Theory*
- 2.50 *Inequalities*
- 2.55 *Stability of Computation, Significance Arithmetic*
- 2.60 *Complexity of Computation*

3.00 Linear Algebra

- 3.05 *Matrices*
- 3.10 *Linear Equations*
  - 3.10.1 *Error Analysis*
- 3.15 *Eigenvalues and Eigenvectors*
  - 3.15.1 *Error Analysis*
- 3.20 *Matrix Inversion and Pseudo-Inverses*
  - 3.20.1 *Error Analysis*
- 3.25 *Linear and Nonlinear Programming, Theory of Games*
  - 3.25.1 *Error Analysis*
- 3.30 *Determinants*
- 3.35 *Sparse Matrices*

4.00 Ordinary Differential Equations

- 4.05 *Initial Value Problems*
  - 4.05.1 *Analytic Methods*
    - 4.05.1.1 *Error Analysis*
  - 4.05.2 *One-Step Methods*
    - 4.05.2.1 *Error Analysis*
  - 4.05.3 *Multistep Methods*
    - 4.05.3.1 *Error Analysis*
- 4.10 *Linear Boundary Value and Eigenvalue Problems*
  - 4.10.1 *Analytic Methods*
    - 4.10.1.1 *Error Analysis*
  - 4.10.2 *Initial Value (Trial and Error or Shooting) Methods*
    - 4.10.2.1 *Error Analysis*

4.10.3 *Finite Difference (Nonshooting) Methods*
4.10.3.1 *Error Analysis*
4.10.4 *Finite Element Methods*
4.10.4.1 *Error Analysis*
4.15 *Nonlinear Boundary Value and Eigenvalue Problems*
4.15.1 *Analytic Methods*
4.15.1.1 *Error Analysis*
4.15.2 *Initial Value (Trial and Error or Shooting) Methods*
4.15.2.1 *Error Analysis*
4.15.3 *Finite Difference (Nonshooting) Methods*
4.15.3.1 *Error Analysis*

5.00 Partial Differential Equations

5.05 *Initial Value Problems*
5.05.1 *Analytic Methods*
5.05.1.1 *Error Analysis*
5.05.2 *Explicit Difference Methods*
5.05.2.1 *Error Analysis*
5.05.3 *Implicit Difference Methods, Iterative Schemes*
5.05.3.1 *Error Analysis*
5.05.4 *Finite Element and Other Approximation Methods*
5.05.4.1 *Error Analysis*
5.10 *Boundary Value Problems*
5.10.1 *Analytic Methods*
5.10.1.1 *Error Analysis*
5.10.2 *Finite Difference Methods, Iterative Schemes*
5.10.2.1 *Error Analysis*
5.10.3 *Finite Element and Other Approximation Methods*
5.10.3.1 *Error Analysis*
5.15 *Eigenvalue Problems*
5.15.1 *Analytic Methods*
5.15.1.1 *Error Analysis*
5.15.2 *Finite Difference Methods, Iterative Schemes*
5.15.2.1 *Error Analysis*
5.15.3 *Finite Element and Other Approximation Methods*
5.15.3.1 *Error Analysis*
5.20 *Mixed Initial and Boundary Value Problems*
5.20.1 *Analytic Methods*
5.20.1.1 *Error Analysis*
5.20.2 *Explicit Difference Methods*
5.20.2.1 *Error Analysis*
5.20.3 *Implicit Difference Methods, Iterative Schemes*
5.20.3.1 *Error Analysis*
5.20.4 *Finite Element and Other Approximation Methods*
5.20.4.1 *Error Analysis*

6.00 Other Functional Equations

6.05 *Difference Equations*
6.10 *Difference-Differential Equations*
6.15 *Integral Equations*
6.20 *Integro-Differential Equations*
6.25 *Convolution Equations*
6.30 *Variational Equations*
6.35 *Abstract Operator Equations*
6.40 *Stochastic Differential Equations*

7.00 Special Functions

7.05 *Mathematical Constants, Special Polynomials (Nonorthogonal) and Numbers: Bernoulli, Euler, Stirling, Binomial Coefficients, Factorials*
7.10 *Elementary Functions, Powers and Roots*
7.15 *Gamma Functions, Psi Functions, Zeta Functions and Related Functions*
7.20 *Incomplete Gamma Functions*

7.20.1 *Exponential Integral, Cosine and Sine Integrals and Related Functions*
7.20.2 *Error Functions, Fresnel Integrals and Related Functions*
7.25 *Confluent Hypergeometric Functions*
7.25.1 *Parabolic Cylinder Functions*
7.25.2 *Coulomb Wave Functions*
7.30 *Bessel Functions*
7.35 *Lommel Functions, Struve Functions, Anger-Weber Functions and Associated Bessel Functions*
7.40 *Legendre Functions*
7.45 *Gaussian Hypergeometric Functions*
7.50 *Orthogonal Polynomials and Functions*
7.55 *Expansions in Series of Orthogonal Polynomials, Bessel Functions, Other Functions*
7.60 *Elliptical Integrals and Functions, Weierstrass Elliptic Integrals, Related Functions*
7.65 *Mathieu Functions*
7.70 *Spheroidal Wave Functions, Other Wave Functions*
7.75 *Generalized Hypergeometric Functions of a Single Variable*
7.80 *Generalized Hypergeometric Functions of More Than One Variable*
7.85 *Basic Hypergeometric Functions*
7.90 *Integral Transforms*
7.95 *Numerical Tables of Integrals and Transforms*
7.100 *Numerical Tables of Infinite Series*
7.105 *Handbooks of Mathematical Tables and Formulae*

8.00 Probability and Statistics

8.05 *Random Numbers*
8.05.1 *Tables*
8.10 *Monte Carlo, Markov Chains*
8.15 *Multivariate Analysis*
8.20 *Regression Analysis*
8.25 *Analysis of Variance*
8.30 *Time Series Analysis*
8.35 *Nonparametric Analysis*
8.40 *Sequential Analysis*
8.45 *Classical Statistics*
8.50 *Handbooks of Tables and Formulae*

9.00 Number Theory

9.05 *Mersenne, Fermat, Perfect and Related Numbers*
9.10 *Number-Theoretic Functions and Tables*
9.15 *Binomial Congruences, Primitive Roots, Residues, etc.*
9.20 *Primes and Their Distribution*
9.25 *Factorization*
9.30 *Forms and Diophantine Equations*
9.35 *Continued Fractions and Diophantine Approximation*
9.40 *Normal Numbers and Distribution of Digits*
9.45 *Modular Computation*

10.00 Algebra and Combinatorial Theory

10.05 *Groups, Rings, Fields, Algebras*
10.10 *Finite Fields*
10.15 *Irreducible Polynomials*
10.20 *Arrays, Latin Squares*
10.25 *Projective Planes, Block Designs, Difference Sets*
10.30 *Permutations, Combinatorial Identities*
10.35 *Graph Theory*

11.00 Geometry

11.05 *Coordinate Conversion Tables*
11.10 *Polyhedra and Polytopes*
11.15 *Graph Theory*

12.00 Computers and Other Aids to Computation

12.05 *Digital Computers*

12.05.1 *Coding, Programming and Software*
12.05.2 *Design and Hardware*
12.05.3 *Computer Aided Instruction*
12.10 *Analog Computers*
12.10.1 *Design and Hardware*
12.15 *Digital-Analog (Hybrid) Computers*
12.15.1 *Coding, Programming and Software*
12.15.2 *Design and Hardware*
12.20 *Mechanical Aids to Computation—Slide Rules, Desk Calculators, Others*
12.25 *Nomographs*

13.00 Application

13.05 *Physical and Chemical Sciences*
13.05.1 *Weights and Measures Tables*
13.10 *Astronomy, Astrophysics*
13.10.1 *Navigation Tables*
13.15 *Engineering Sciences*
13.15.1 *Engineering Tables*
13.20 *Earth Sciences, Atmospheric Sciences, Fluid Dynamics*
13.20.1 *Triangulation and Geodetic Tables*
13.25 *Biology and the Behavioral Sciences*
13.30 *Economics and the Social Sciences*
13.35 *Information Theory, Automata, Logic Control Theory, Dynamic Programming, Cybernetics*
13.40 *Management Problems, Data Analysis and Processing*
13.45 *Actuarial Science*
13.45.1 *Actuarial and Financial Tables*
13.50 *Humanities, Linguistics*
13.55 *Logic*

14.00 Miscellaneous

14.05 *Mathematical Research, Mathematical Education*

INDEX OF REVIEWS BY AUTHOR OF WORK REVIEWED

Author	Review Number	Classification	Page
ALLAN, R. N.	36	See: BRAMELLER, A., ALLAN, R. N. & HAMAN, Y. M.	894
ANGELL, I. O.	32	9.00	670
ANSORGE, R., COLLATZ, L., HÄMMERLIN, G. & TÖRNIG, W., Editors	16	4.00, 5.00	375
BAILLIE, ROBERT	6	9.00	189
BANIUK, L.	20	See: BARRUCAND, P., WILLIAMS, H. C. & BANIUK, L.	377
BARRUCAND, P., WILLIAMS, H. C. & BANIUK, L.	20	9.00	377
BELLMAN, RICHARD & WING, MILTON G.	12	4.00, 5.00, 6.00	373
BOYLE, J. M.	5	See: SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C. & MOLER, C. B.	188
BRAMELLER, A., ALLAN, R. N. & HAMAN, Y. M.	36	3.05, 3.10, 3.25	894
BRENNER, P., THOMÉE, B. & WAHLBIN, L. B.	9	5.05.2.1, 5.05.3.1	371
BRENT, RICHARD P.	21	9.00	379
BRENT, RICHARD P.	30	7.00	668
BUTZER, P. L. & SZ.-NAGY, B.	4	2.05	188
CARASSO, A. & STONE, A. P., Editors	41	5.10.1	896
COLLATZ, L.	16	See: ANSORGE, R., COLLATZ, L., HÄMMERLIN, G. & TÖRNIG, W., Editors	375
COLLATZ, L. & HADELER, K. P., Editors	3	3.15, 5.15	188
COLLATZ, L. & MEINARDUS, G., Editors	17	2.05	375
COLLATZ, L. & WETTERLING, W., Editors	2	2.00	188
COMTET, LOUIS	7	10.00	190
DAVIS, PHILIP J. & RABINOWITZ, PHILIP	28	2.10	666
DEMYANOV, V. F. & MALOZEMOV, V. N.	11	2.05	372
GARBOW, B. S.	5	See: SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C. & MOLER, C. B.	188
GOOS, G., HARTMANIS, J. & MARCHUK, G. I., Editors	37	3.25	895
GOOS, G., HARTMANIS, J. & NICKEL, K., Editors	34	2.00	894
HADELER, K. P.	3	See: COLLATZ, L. & HADELER, K. P., Editors	188
HAMAN, Y. M.	36	See: BRAMELLER, A., ALLAN, R. N. & HAMAN, Y. M.	894
HÄMMERLIN, G.	16	See: ANSORGE, R., COLLATZ, L., HÄMMERLIN, G. & TÖRNIG, W., Editors	375

Author	Review Number	Classification	Page
HANSON, RICHARD J.	26	See: LAWSON, CHARLES L. & HANSON, RICHARD J.	665
HARTER, H. L., Coeditor	31	See: THE INSTITUTE OF MATHEMATICAL STATISTICS, Editors, and HARTER, H. L. & OWEN, D. B., Coeditors	668
HARTLEY, H. O.	8	See: PEARSON, E. S. & HARTLEY, H. O., Editors	192
HARTMANIS, J.	37	See: GOOS, G., HARTMANIS, J. & MARCHUK, G. I., Editors	895
HARTMANIS, J.	34	See: GOOS, G., HARTMANIS, J. & NICKEL, K., Editors	894
HEWLETT PACKARD ADVANCED PRODUCTS DIVISION	23	12.00	380
HILDEBRAND, F. B.	24	2.00, 3.10, 3.20, 4.00	664
HODGKINS, W. R.	39	See: OCKENDON, J. R. & HODGKINS, W. R., Editors	895
HUBBARD, BERT, Editor	38	5.00	895
IKEBE, Y.	5	See: SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C. & MOLER, C. B.	188
KLEMA, V. C.	5	See: SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C., & MOLER, C. B.	188
LAUWERIER, H. A.	1	14.00	188
LAWSON, CHARLES L. & HANSON RICHARD J.	26	2.05.1	665
LEVEQUE, WILLIAM J., Editor	22	9.00	379
LEVINE, NORMAN	27	See: SALZER, HERBERT E., LEVINE, NORMAN & SERBEN, SAUL	666
MAGUIRE, WILLIAM C.	29	3.00, 13.00	667
MALOZEMOV, V. N.	11	See: DEMYANOV, V. F. & MALOZEMOV, V. N.	372
MARCHUK, G. I.	37	See: GOOS, G., HARTMANIS, J. & MARCHUK, G. I., Editors	895
MEINARDUS, G.	17	See: COLLATZ, L. & MEINARDUS, G., Editors	375
MOLER, C. B.	5	See: SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C., & MOLER, C. B.	188
NICKEL, K.	34	See: GOOS, G., HARTMANIS, J. & NICKEL, K., Editors	894
OCKENDON, J. R., & HODGKINS, W. R., Editors	39	5.10, 5.20, 13.05, 13.15	895
ORD-SMITH, R. J. & STEPHENSON, J.	33	12.15	673
OWEN, D. B., Coeditor	31	See: THE INSTITUTE OF MATHEMATICAL STATISTICS, Editors, and HARTER, H. L. & OWEN, D. B., Coeditors	668
PARKIN, THOMAS R. & SHANKS, DANIEL	42	9.00	897
PEARSON, E. S. & HARTLEY, H. O., Editors	8	8.00	192
PHILLIPS, G. M. & TAYLOR, P. J.	10	2.00, 3.00, 4.00	371
PINZUR, L.	43	9.00	897
RABINOWITZ, PHILIP	28	See: DAVIS, PHILIP J. & RABINOWITZ, PHILIP	666
RICHTMYER, ROBERT D., Editor	40	5.10, 5.20, 13.20	896

Author	Review Number	Classification	
RIVLIN, THEODORE J.	13	7.50	374
SALZER, HERBERT E., LEVINE, NORMAN & SERBEN, SAUL	27	2.05.03	666
SCHRUTKA v. RECHTENSTAMM, G.	18	9.00	375
SERBEN, SAUL	27	See: SALZER, HERBERT E., LEVINE, NORMAN & SERBEN, SAUL	666
SHALLIT, JEFFREY	19	7.00	377
SHANKS, DANIEL	42	See: PARKIN, THOMAS R. & SHANKS, DANIEL	897
SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C. & MOLER, C. B.	5	3.15	188
SNELL, J. LAURIE	14	8.00	374
STEPHENSON, J.	33	See: ORD-SMITH, R. J. & STEPHENSON, J.	673
STOL, PH. TH.	25	2.05.1	664
STONE, A. P.	41	See: CARASSO, A. & STONE, A. P., Editors	896
STRANG, GILBERT	35	3.00	894
SZ.-NAGY, B.	4	See: BUTZER, P. L. & SZ.-NAGY, B.	188
TAYLOR, P. J.	10	See: PHILLIPS, G. M. & TAYLOR, P. J.	371
THE INSTITUTE OF MATHEMATICAL STATISTICS, Editors, and HARTER, H. L. & OWEN, D. B., Coeditors	31	8.00	668
THOMÉE, B.	9	See: BRENNER, P., THOMÉE, B. & WAHLBIN, L. B.	371
TÖRNIG, W.	16	See: ANSORGE, R., COLLATZ, L., HÄMMERLIN, G. & TÖRNIG, W., Editors	375
WAHLBIN, L. B.	9	See: BRENNER, P., THOMÉE, B. & WAHLBIN, L. B.	371
WETTERLING, W.	2	See: COLLATZ, L. & WETTERLING, W., Editors	188
WHITEMAN, J. R.	15	4.10.4, 5.05.4, 5.10.3, 5.15.3, 5.20.4	375
WILLIAMS, H. C.	20	See: BARRUCAND, P., WILLIAMS, H. C. & BANIUK, L.	377
WING, MILTON G.	12	See: BELLMAN, RICHARD & WING, MILTON G.	373

INDEX OF REVIEWS BY SUBJECT OF WORK REVIEWED

Author	Review Number	Title	Page
2.00 Selected Topics in Numerical Analysis			
COLLATZ, L. & WETTERLING, W., Editors	2	Numerische Methoden bei Optimierungsaufgaben	188
GOOS, G., HARTMANIS, J. & NICKEL, K., Editors	34	Interval Mathematics	894
HILDEBRAND, F. B.	24	Introduction to Numerical Analysis	664
PHILLIPS, G. M. & TAYLOR, P. J.	10	Theory and Applications of Numerical Analysis	371
2.05 Approximation Theory			
BUTZER, P. L. & SZ.-NAGY, B.	4	Linear Operators and Approximation. II	188
COLLATZ, L. & MEINARDUS, G., Editors	17	Numerische Methoden der Approximationstheorie, Band 2	375
DEMYANOV, V. F. & MALOZEMOV, V. N.	11	Introduction to Minimax	372

Author	Review Number	Title	Page
2.05.1 *Least Squares, Curve Fitting, Harmonic Analysis*			
LAWSON, CHARLES L. & HANSON, RICHARD J.	26	Solving Least Squares Problems	665
STOL, PH. TH.	25	Nonlinear Parameter Optimization	664
2.05.3 *Interpolation, Extrapolation*			
SALZER, HERBERT E., LEVINE, NORMAN & SERBEN, SAUL	27	Hundred-Point Lagrange Interpolation Coefficients for Chebyshev Nodes	666
2.10 *Numerical Integration*			
DAVIS, PHILIP J. & RABINOWITZ, PHILIP	28	Methods of Numerical Integration	666
3.00 Linear Algebra			
MAGUIRE, WILLIAM C.	29	Rotation Matrices $d^{j}_{m',m}$ for Argument $\pi/2$ in Numerically Factored Form	667
PHILLIPS, G. M. & TAYLOR, P. J.	10	Theory and Applications of Numerical Analysis	371
STRANG, GILBERT	35	Linear Algebra and Its Applications	894
3.05 *Matrices*			
BRAMELLER, A., ALLAN, R. N. & HAMAN, Y. M.	36	Sparsity	894
3.10 *Linear Equations*			
BRAMELLER, A., ALLAN, R. N. & HAMAN, Y. M.	36	Sparsity	894
HILDEBRAND, F. B.	24	Introduction to Numerical Analysis	664
3.15 *Eigenvalues and Eigenvectors*			
COLLATZ, L. & HADELER, K. P., Editors	3	Numerische Behandlung von Eigenwertaufgaben	188
SMITH, B. T., BOYLE, J. M., GARBOW, B. S., IKEBE, Y., KLEMA, V. C. & MOLER, C. B.	5	Matrix Eigensystem Routines—EISPACK Guide	188
3.20 *Matrix Inversion and Pseudo-Inverses*			
HILDEBRAND, F. B.	24	Introduction to Numerical Analysis	664
3.25 *Linear and Nonlinear Programming, Theory of Games*			
BRAMELLER, A., ALLAN, R. N. & HAMAN, Y. M.	36	Sparsity	894
GOOS, G., HARTMANIS, J. & MARCHUK, G. I., Editors	37	Optimization Techniques	895
4.00 Ordinary Differential Equations			
ANSORGE, R., COLLATZ, L., HÄMMERLIN, G. & TÖRNIG, W., Editors	16	Numerische Behandlung von Differentialgleichungen	375
BELLMAN, RICHARD & WING, MILTON G.	12	An Introduction to Minimax	373
HILDEBRAND, F. B.	24	Introduction to Numerical Analysis	664
PHILLIPS, G. M. & TAYLOR, P. J.	10	Theory and Applications of Numerical Analysis	371
4.10.4 *Finite Element Methods*			
WHITEMAN, J. R.	15	A Bibliography for Finite Elements	375
5.00 Partial Differential Equations			
ANSORGE, R., COLLATZ, L., HÄMMERLIN, G. & TÖRNIG, W., Editors	16	Numerische Behandlung von Differentialgleichungen	375
BELLMAN, RICHARD & WING, MILTON G.	12	An Introduction to Minimax	373
HUBBARD, BERT, Editor	38	Numerical Solutions of Partial Differential Equations	895

Author	Review Number	Title	Page
5.05.2.1 *Error Analysis*			
BRENNER, P., THOMÉE, B. & WAHLBIN, L. B.	9	Besov Spaces and Applications to Difference Methods for Initial Value Problems	371
5.05.3.1 *Error Analysis*			
BRENNER, P., THOMÉE, B. & WAHLBIN, L. B.	9	Besov Spaces and Applications to Difference Methods for Initial Value Problems	371
5.05.4 *Finite Element and Other Approximation Methods*			
WHITEMAN, J. R.	15	A Bibliography for Finite Elements	375
5.10 *Boundary Value Problems*			
OCKENDON, J. R. & HODGKINS, W. R., Editors	39	Moving Boundary Problems in Heat Flow and Diffusion	895
RICHTMYER, ROBERT D., Editor	40	Proceedings of the Fourth International Conference on Numerical Methods in Fluid Dynamics	896
5.10.1 *Analytic Methods*			
CARASSO, A. & STONE, A. P., Editors	41	Improperly Posed Boundary Value Problems	896
5.10.3 *Finite Element and Other Approximation Methods*			
WHITEMAN, J. R.	15	A Bibliography for Finite Elements	375
5.15 *Eigenvalue Problems*			
COLLATZ, L. & HADELER, K. P., Editors	3	Numerische Behandlung von Eigenwertaufgaben	188
5.15.3 *Finite Element and Other Approximation Methods*			
WHITEMAN, J. R.	15	A Bibliography for Finite Elements	375
5.20 *Mixed Initial and Boundary Value Problems*			
OCKENDON, J. R. & HODGKINS, W. R., Editors	39	Moving Boundary Problems in Heat Flow and Diffusion	895
RICHTMYER, ROBERT D., Editor	40	Proceedings of the Fourth International Conference on Numerical Methods in Fluid Dynamics	896
5.20.4 *Finite Element and Other Approximation Methods*			
WHITEMAN, J. R.	15	A Bibliography for Finite Elements	375
6.00 Other Functional Equations			
BELLMAN, RICHARD & WING, MILTON G.	12	An Introduction to Minimax	373
7.00 Special Functions			
BRENT, RICHARD P.	30	Knuth's Constants to 1000 Decimal and 1100 Octal Places	
SHALLIT, JEFFREY	19	Calculation of $\sqrt{5}$ and ϕ (the Golden Ratio) to 10,000 Decimal Places	377
7.50 *Orthogonal Polynomials and Functions*			
RIVLIN, THEODORE J.	13	The Chebyshev Polynomials	374
8.00 Probability and Statistics			
PEARSON, E. S. & HARTLEY, H. O., Editors	8	Biometrika Tables for Statisticians. Vol. 2	192
SNELL, J. LAURIE	14	Introduction to Probability Theory with Computing	374
THE INSTITUTE OF MATHEMATICAL STATISTICS, Editors, and HARTER, H. L. & OWEN, D. B., Coeditors	31	Selected Tables in Mathematical Statistics. Vol. II	668
9.00 Number Theory			
ANGELL, I. O.	32	A Table of Totally Real Cubic Fields	670

Author	Review Number	Title	Page
BAILLIE, ROBERT	6	Table of $\phi(n) = \phi(n+1)$	189
BARRUCAND, P., WILLIAMS, H. C. & BANIUK, L.	20	Table of Pure Cubic Fields $Q(\sqrt[3]{D})$ for $D < 10^4$	377
BRENT, RICHARD P.	21	Tables Concerning Irregularities in the Distribution of Primes and Twin Primes to 10^{11}	379
LEVEQUE, WILLIAM J., Editor	22	Reviews in Number Theory	379
PARKIN, THOMAS R. & SHANKS, DANIEL	42	Three Tables Concerning the Parity of the Partition Numbers $p(n)$ for $n < 2040000$	897
PINZUR, L.	43	Tables of Dedekind Sums	897
SCHRUTKA v. RECHTENSTAMN, G.	18	Tabelle der (Relativ)-Klassenzahlen der Kreiskörper deren ϕ-Funktion des Wurtzelexponenten (Grad) nicht grösser als 256 ist	375
10.00 Algebra and Combinatorial Theory			
COMTET, LOUIS	7	Advanced Combinatorics	190
12.00 Computers and Other Aids to Computation			
HEWLETT PACKARD ADVANCED PRODUCTS DIVISION	23	HP-45 Applications Book	380
12.15 Digital-Analog (Hybrid) Computers			
ORD-SMITH, R. J. & STEPHENSON, J.	33	Computer Simulation of Continuous Systems	673
13.00 Applications			
MAGUIRE, WILLIAM C.	29	Rotation Matrices $d^j_{m'm}$ for Argument $\pi/2$ in Numerically Factored Form	667
13.05 Physical and Chemical Sciences			
OCKENDON, J. R. & HODGKINS, W. R., Editors	39	Moving Boundary Problems in Heat Flow and Diffusion	895
13.15 Engineering Sciences			
OCKENDON, J. R. & HODGKINS, W. R., Editors	39	Moving Boundary Problems in Heat Flow and Diffusion	895
13.20 Earth Sciences, Atmospheric Sciences, Fluid Dynamics			
RICHTMYER, ROBERT D., Editor	40	Proceedings of the Fourth International Conference on Numerical Methods in Fluid Dynamics	896
14.00 Miscellaneous			
LAUWERIER, H. A.	1	Asymptotic Analysis	188

INDEX OF TABLE ERRATA

No.	Author	Title	Page
523	ABRAMOWITZ, MILTON & STEGUN, IRENE A.	Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables	675
529	ABRAMOWITZ, MILTON & STEGUN, IRENE A.	Handbook of Mathematical Functions with Formulas, Graphs, and Mathematical Tables	899
521	CHOONG, K. Y., DAYKIN, D. E. & RATHBONE, C. R.	Rational Approximations to π	381
521	CHOONG, K. Y., DAYKIN, D. E. & RATHBONE, C. R.	Regular Continued Fractions for π and γ	381
524	ERDÉLYI, A., MAGNUS, W., OBERHETTINGER, F. & TRICOMI, F. G.	Higher Transcendental Functions	675
528	GRADSHTEYN, I. S. & RYZHIK, I. M.	Tables of Integrals, Series, and Products.	899
522	HILL, DAVID R.	On Comparing Adams and Natural Spline Multistep Formulas	381

No.	Author	Title	Page
525	HORNER, F.	A Table of a Function Used in Radio-Propagation Theory	676
530	KAYE, JOSEPH	A Table of the First Eleven Repeated Integrals of the Error Function	899
527	MAGNUS, W., OBERHETTINGER, F. & SONI, R. P.	Formulas and Theorems for the Special Functions of Mathematical Physics	677
526	MEISSEL, E.	Ueber die Besselschen Funktionen $J_0(x)$ und $J_1(x)$	677
527	SLATER, L. J.	Confluent Hypergeometric Functions	677

INDEX OF CORRIGENDA

Author	Title	Page
ANGELL, I. O.	UMT 33	198
ALTER, RONALD & CURTZ, THADDEUS B.	A note on Congruent Numbers	198
BRENT, RICHARD P.	Irregularities in the Distribution of Primes and Twin Primes	198
HALLYBURTON, JOHN C., JR. & BRILLHART, JOHN	Two New Factors of Fermat Numbers	198
HENDY, M. D.	The Distribution of Ideal Class Numbers of Real Quadratic Fields	679
SCHOENFELD, LOWELL	Sharper Bounds for the Chebyshev Functions $\theta(x)$ and $\psi(x)$. II	900
SHANKS, DANIEL	Class Groups of the Quadratic Fields Found by F. Diaz y Diaz	900
SHANKS, DANIEL	Calculation and Applications of Epstein Zeta Functions	900

INDEX OF MICROFICHE SUPPLEMENTS

Author	Title	MOC Issue
ALONSO, J.	Groups of Square-Free Order, An Algorithm	July
BEARD, JACOB T. B., JR. & WEST, KAREN I.	Factorization Tables for Trinomials Over GF(q)	January
BLAIR, J. M., EDWARDS, C. A. & JOHNSON, J. H.	Rational Chebyshev Approximations for the Inverse of the Error Function	October
FETTIS, HENRY E.	Complex Roots of $\sin z = az$, $\cos z = az$, and $\cosh z = az$	July
SCHETT, ALOIS	Properties of the Taylor Series Expansion Coefficients of the Jacobian Elliptic Functions	January